



Barbara M. Dillmann
Superintendent of Schools

Siskiyou County Office of Education

*Providing a Menu of Powerful Services to Schools and Communities
Supporting the Learning Goals of Each Child and Family*

FEB 07 2002

Board of Education

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Final Report 2000/2001

2/1/02

Title:

Natural Resources Education Program

Cooperators Name:

Siskiyou County Office of Education
609 South Gold St.
Yreka, CA 96097
Contact: Jason Singleton (530-842-8402)

Project Number:

2001-E-03

Agreement Number:

11333-01-J001

DATE APPROVED

INITIAL

DATE FILED

INITIAL

Final Report 2000/2001

1. Abstract

In 1994, the AmeriCorps Watershed Project (AWP) was created to educate students statewide about the importance of their local watershed. Siskiyou County was provided with 8 AmeriCorps members to work in area schools. Each member worked with teachers and resource professionals to develop real hands-on science projects for students. The member worked with the community to educate them by inviting them to work with the students on these projects. The members became an integral part of the community. In 2000, we received notice that our AmeriCorps funding would not be renewed for the 2000-2003 funding cycle.

The (AWP) served Siskiyou County schools for 6 years. It was the uniqueness of the program that enthused schools. Not only did the program provide natural resources and watershed education, but it provided the schools with a person to help plan and implement these programs. During these 6 years, over 40,000 students and more than 1000 teachers were served by the program. The Siskiyou County Office of Education (SCOE) saw it necessary to continue this program after AmeriCorps went away.

With funding support from the SCOE, area schools, and the Klamath River Basin Fisheries Task Force the Natural Resources Education Program (NREP) was created. The goal was to continue a program similar to the AWP by providing schools with a person to plan and implement natural resources education programs. During our first year (2000/01), we were able to reach our goal of providing a Community Coordinator to each participating school. We served over 11,000 students (many were involved in more than one project), worked with over 200 teachers, recruited 625 volunteers with those volunteers donating more than 2000 hours.

In 2000/01 the NREP program continued its support of the Aquarium Incubator Project, salmon surveys, aquatic insects, and water quality studies, and the Student Watershed Forum. We took the lead on Science Fun Day, held at College of the Siskiyous, and many in-class and field activities. With the success of this year's program, NREP plans on expanding its area of service for the 2001/02 year.

2. Introduction

One of the goals of AmeriCorps is to have the program become an integral part of the community, so when AmeriCorps goes away the program can still exist. After receiving notice that we would not be funded, steps were taken to create a program that would be similar to the AWP. Knowing at some point our AmeriCorps funding would not be renewed, some steps had already been put into motion. In September 2000, the Natural Resources Education Program (NREP) began. NREP is sponsored by the Siskiyou County Office of Education (SCOE) with funding support from area schools, Klamath River Basin Fisheries Task Force, and SCOE. In a relatively short time, the NREP program provided support to schools, teachers, and the community just as the AWP had the previous six years.

3. Description of Study Area

Our area of study includes all participating schools in Siskiyou County. For the 2000/2001 year, 16 schools and 3 community organizations participated. In order for a school to participate they must provide a percentage of the funding support for the program. In 2001/2002, we are looking to expand our area of study to include the Salmon River Watershed and increase our number participating schools to 19 and organizations to 5.

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4. Methods and materials:

One of the hardest things to determine is how to measure what the students have learned about natural resources. The methods we use during this first year were somewhat experimental. In our grant proposal we said that we would survey 200 students to test their knowledge of the watershed. Forty eight teachers would receive surveys asking what their students learned and how successful the project was. Eighty volunteers were to be surveyed asking if the project was beneficial to students.

The students surveys were to be given at the beginning and end of a project. See attached for example of pre and post-surveys. Surveying students was found to be very challenging. The challenges included students not understanding survey, not writing legibly, taking time away from natural resource projects, and the teacher not providing time to do the survey. Based on these challenges, it was decided that the data collected for the student surveys was not good enough to provide any results.

The teacher survey worked fairly well. We were successful in surveying 48 teachers on their students knowledge and project success. See attached for example of survey.

The volunteer survey was designed to be quick and easy for a volunteer to fill out. Each volunteer was asked if they thought the student learn from the project. See attached for example of survey.

Based on feedback received on this years surveys, we will be updating the surveys to help us better measure our successes.

5.Results and discussion of accomplishments:

The NREP program goals were to serve 6000 students, 200 teachers, recruit 700 volunteers with the volunteers donating 1400 hours. Students projects included tree planting, water quality, aquatic insects, raising fish in the classroom, fish dissections, and fieldtrips.

During the 2000/2001 year, NREP served over 11,000 students (many were involved in more than one project). The NREP program served over 100 teachers, of these 100 plus teachers, most participated in 5 or more projects during the year. We recruited 625 volunteers and those volunteers donated 2093 hours. Below are some of the projects that the NREP program helped to create, plan, and implement.

Water quality and aquatic insect studies:

The NREP program coordinated and implemented successful projects throughout the Klamath River Watershed. We worked with Little Shasta elementary school to develop a monitoring project on the Little Shasta River. Students learned the processes of measuring water quality, streamflow, and collecting aquatic insects. This project will continue through the end of the school year. Many elementary schools including Weed, Gold St., and Montague participated in similar studies.

Aquarium Incubator Project:

The NREP program continued to support the Aquarium Incubator Project this year. The NREP staff supported nearly 60 classrooms in the fall and spring. The NREP staff helped package the eggs for delivery and then were part of the delivery schedule that included classrooms throughout the Klamath River Watershed. The Community Coordinators worked with teachers to develop activities based on the Aquarium Incubator curriculum. Projects included fish dissection, fish prints, field trips, and in class activities.

Student Watershed Forum:

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The 4th annual Student Watershed Forum was held at the Siskiyou County Office of Education in May. Ten student groups from all over Siskiyou County came to present their natural resources projects. Grades 5-12 were represented. Presentations included water quality monitoring, spawning grounds surveys, aquarium incubator projects, and animals of the watershed.

Science Fun Day:

Four hundred students in grades 1-4 participated in the 4th annual Science Fun Day at College of the Siskiyous. Over 40 volunteers, including AmeriCorps, resource professionals, and community members showed students that science is fun. Stations included aquatic insects, native plants, trees, birds, fly tying, fish habitat, and our most popular booth cow-eye dissection.

6. Summary and conclusions

The Natural Resources Education Program (NREP) had a successful first year. Considering the challenges of operating a program similar to AmeriCorps Watershed Project (AWP), without the funding support, the feedback we received was positive. Our staff was reduced from 8 full time members to 7 part-time, however we still managed to serve over 11,000 students. The NREP program was able to support programs like the Aquarium Incubator Project to the same level as AWP had. The feedback we received from schools and teachers was that this is a very positive program for the students and community. It allows teachers who are not familiar with natural resources education an opportunity to learn and teach. For those teachers who already have programs, NREP works to enhance their programs. We are able to keep the community involved by inviting them to participate. By involving everyone in the natural resources education program, NREP is able to increase awareness of the Klamath River Watershed and the surrounding areas. We plan on continuing this program and expanding it to reach more areas within the Klamath River Watershed.

For additional information see our website at: www.sisnet.ssku.k12.ca.us Click on Natural Resources Education Program.

7. Summary of expenditures (see attached)

8. Pictures (see attached)

Budget Summary

From: Siskiyou County Office of Education
609 South Gold Street
Yreka, CA 96097

Date: December 6, 2001

To: Phil Detrich
U.S. Fish and Wildlife Service
1829 South Oregon Street
Yreka, CA 96097

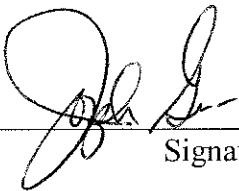
Agreement No: 11333-01-J001
Project No: 2001-E-03

Project Title: Siskiyou Natural Resource

For Work Completed: 10/1/00-09/30/01

1. Salaries/Benefits	\$ 50,067.84
2. Travel	\$ 1,257.24
3. Materials and Supplies	\$ 729.60
4. Operations and Maintenance Expenses	\$ 1,371.65
5. General Administration	\$ <u>1,502.74</u>
	\$ 54,929.07
	\$ <u>(31,448.00)</u> approved grant award
	\$ 23,481.07 included in the in-kind contribution

In-kind Contribution \$118,281.00



Signature

Sources of cost share funds Natural Resources Education Programs

Siskiyou County Office of Education
River Exchange Center
Northern California Resource Center
Department of Fish and Game
Siskiyou RCD
California Conservation Corps
Morgan Siskiyou Foundation
Butteville Elementary School
Gazelle Elementary School
Jackson St. Elementary School
Gold Street Elementary School
Mt. Shasta High School
Weed High School
Sisson Middle School
Mt. Shasta Elementary School
Little Shasta Elementary School
Montague Elementary School
Willow Cr. Elementary School
Yreka High School
Discovery High School
Etna High School
Etna Elementary School
French Cr Outdoor School
Jefferson High School



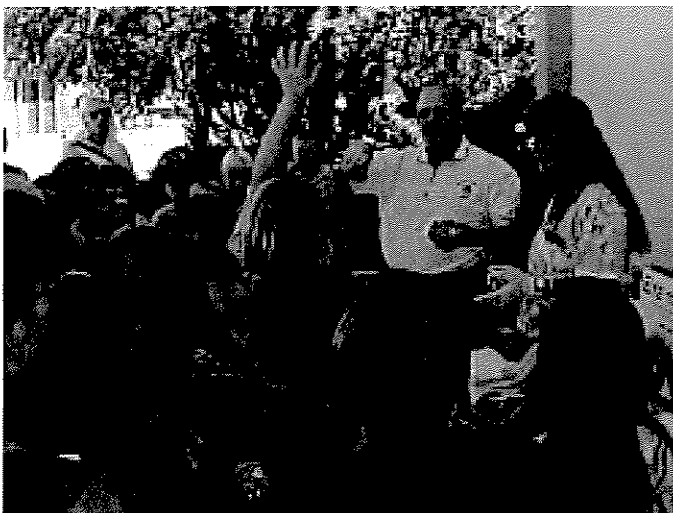
Community Coordinator teaches Gold St. Elementary student about aquatic insects.



NREP Staff participate in an orienteering workshop.



U.S. Fish and Wildlife Service personnel presenting at Science Fun Day.



Above: Siskiyou County Office of Education staff teach students about the inner workings of the eye through cow-eye dissection at Science Fun Day.

Below: Etna Elementary School student learns to measure dissolved oxygen under the guidance of a NREP Community Coordinator.



Student Survey
Natural Resources Education Program
Siskiyou County Office of Education

PRE
STUDENT SURVEY

Grade level: _____

Date: _____

1) Do you know what watershed you live in? If so which?

2) Do you know what a watershed is? If so explain.

3) Which subject(s) will you be learning about?

- ☐ water quality
- ☐ stream flow
- ☐ aquatic insects
- ☐ propagating native plant species

- ☐ cross-sectional profiles
- ☐ Aquarium Incubator Project
- ☐ Cooperative Spawning Ground Survey
- Other _____

4) What do you know about this subject?

PRE
STUDENT SURVEY

Grade level: _____

Date: _____

1) Do you know what watershed you live in? If so which?

2) Do you know what a watershed is? If so explain.

3) Which subject(s) will you be learning about?

- ☐ water quality
- ☐ stream flow
- ☐ aquatic insects
- ☐ propagating native plant species

- ☐ cross-sectional profiles
- ☐ Aquarium Incubator Project
- ☐ Cooperative Spawning Ground Survey
- Other _____

4) What do you know about this subject?

Student Survey
Natural Resources Education Program
Siskiyou County Office of Education

POST
STUDENT SURVEY

Grade level: _____

Date: _____

1) Do you know what watershed you live in? If so which?

2) Do you know what a watershed is? If so explain.

3) Which subject(s) did you learn about?

- ☐ water quality
- ☐ stream flow
- ☐ aquatic insects
- ☐ propagating native plant species

- ☐ cross-sectional profiles
- ☐ Aquarium Incubator Project
- ☐ Cooperative Spawning Ground Survey
- Other _____

4) What do you know about this subject?

5) What was one thing you learned from this project?

Teacher Survey
Natural Resources Education Program
Siskiyou County Office of Education

Teacher Name:

School:

Grade Level:

Date:

Project Title:

- 1) Do you feel that this project was a positive learning experience for your students?

- 2) What do you think your students learned?

- 3) Did you feel that this project aligned with the California Science Standards for your grade level?

- 4) Was the project well organized?

- 5) What suggestions do you have for new activities or programs?

Johnna

Teacher Survey
Natural Resources Education Program
Siskiyou County Office of Education

Teacher Name: Jeanne Amaral
School: Montague
Grade Level: 5th
Date: Nov. 6th, 2000
Project Title: Fish Dissection

1) Do you feel that this project was a positive learning experience for your students?

Yes, my students learned and enjoyed the dissection project.

2) What do you think your students learned?

They learned to use tools for dissection carefully. They learned how to dissect and they learned the parts of the fish, they found most of the internal organs.

3) Did you feel that this project aligned with the California Science Standards for your grade level?

This can be used at any middle grade years.

4) Was the project well organized?

Yes very well organized, Each center was set up before students came in, and ready for them to begin.

5) What suggestions do you have for new activities or programs? Nothing at the moment.

Thank you keep up the good work.

Teacher Survey
Natural Resources Education Program
Siskiyou County Office of Education

Teacher Name: Christian Birch
School: Yreka High School
Grade Level: 9th
Date: all year project
Project Title: Aquarium Incubator

1) Do you feel that this project was a positive learning experience for your students?

Yes - students came in every day and saw the progress of growth and asked about the life cycle.

2) What do you think your students learned?

The main thing they learned is that salmon fry are very sensitive to their environment.

3) Did you feel that this project aligned with the California Science Standards for your grade level?

There are many aspects of this project that align with the Science Standards, such as life cycles, watershed monitoring.

4) Was the project well organized?

Very well organized - lots of help from AmeriCorp members - Nubase!

5) What suggestions do you have for new activities or programs?

Volunteer Survey
Natural Resources Education Program
Siskiyou County Office of Education

Project Title: _____

Project Date: _____

Volunteer Name	Hours volunteered	Do you think this project was beneficial to the students?

Volunteer Survey
Natural Resources Education Program
Siskiyou County Office of Education

Project Title: Salmon Release
Project Date: 12/14/00

Volunteer Name	Hours volunteered	Do you think this project was beneficial to the students?
Dan Ballard	6 hrs	Yes, This was a great project.
Karen Peginatis	6 hrs.	Yes, we learned a lot & it was fun!
Gretchen Gerlitz	6 hrs.	Yes it was informative
Jonie Acord	5 hrs	Yes, this was a great project
Terri Brown	5 hrs.	Yes, very informative + essential.
Christy Reing	5 hrs.	Yes, especially about erosion.
Charlene Gray	5 hrs	Yes, very informing + hands on
Peter Feller	5 hrs	Yes, learning about environment is important

Hendi Nesheim 5 hrs Yes, very interesting & informative